

Amendments to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the Application.

Listing of Claims:

Claims 1-24 (Previously Canceled)

25. (Original) A spatially unrestricted force-feedback device, comprising:

a body;

a plurality of motors, each of said motors capable of imparting an inertial force about an associated axis of rotation and each of said motors connected to said body to provide computer controllable tactile sensations on said body about said associated axis;

a user-interactable member connected to said body, wherein said user-interactable member is in communication with a host computer system modeling a simulated environment including one or more simulated objects, said host computer system commanding said tactile sensations on said body as a function of a simulated activity involving at least one object within said simulated environment; and

a computer mediated controller electrically connected to said motors and in communication with said host computer system, said controller receiving signals from said host computer system and simultaneously controlling each of said motors in response such that said motors produce said inertial forces about said axes, and said

controller sending data to said host computer system, said data responsive to user manipulation of said user-interactable member.

26. (Original) A spatially unrestricted force-feedback device as described in claim 25, wherein said computer mediated controller decodes commands received from said host computer system.

C 27. (Original) A spatially unrestricted force-feedback device as described in claim 25, wherein said computer mediated controller decodes commands received on a serial communication bus.

28. (Original) A spatially unrestricted force-feedback device as described in claim 25, wherein said user-interactable member is a joystick.

29. (Original) A spatially unrestricted force-feedback device as described in claim 25, wherein said user-interactable member is a steering wheel.

30. (Original) A spatially unrestricted force-feedback device as described in claim 25, wherein said user-interactable member is associated with the simulation of a sport.

31. (Original) A spatially unrestricted force-feedback device as described in claim 25, wherein said computer mediated controller includes a processor that runs motor control code stored in Read-Only memory.

32. (Original) A spatially unrestricted force-feedback device as described in claim 25, wherein at least a portion of said computer controllable inertial forces stabilize said body in at least one spatial dimension to counteract undesired torques produced by at least one of said motors.

33. (Original) A spatially unrestricted force-feedback device as described in claim 25, wherein said computer controllable inertial forces stabilize said body in at least one spatial dimension.

34. (New) A device comprising:

a body;

a motor having an axis of rotation, said motor operable to impart an inertial force about said axis of rotation, said motor in communication with said body and operable to communicate said inertial force to said body; and

a manipulandum coupled to said body and in communication with a processor, said processor operable to control said inertial force.

35. (New) A device as described in claim 34, further comprising a controller in communication with said motor and said processor, said controller operable to receive a signal from said processor and to control said motor.

36. (New) A device as described in claim 34, wherein said inertial force is operable to stabilize said body in a spatial dimension.

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37. (New) A device as described in claim 34, wherein said motor comprises a first motor, said axis of rotation comprises a first axis of rotation, and said inertial force comprises a first inertial force, said device further comprising a second motor having a second axis of rotation, said second motor operable to impart a second inertial force about said second axis of rotation.

38. (New) A device as described in claim 37, further comprising a third motor having a third axis of rotation, said third motor operable to impart a third inertial force about said third axis of rotation.

39. (New) A device as described in claim 38, wherein said second axis is disposed substantially orthogonal to said first axis and said third axis is disposed substantially orthogonal to said first and second axes.
